



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,933	04/02/2004	Alexander Buhl	41653-201032	9442

26694 7590 04/12/2007
VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER

TAWFIK, SAMEH

ART UNIT	PAPER NUMBER
----------	--------------

3721

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/815,933

Applicant(s)

BUHL ET AL.

Examiner

Sameh H. Tawfik

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-7, 11-13, 27, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Ancelle et al. (U.S. Patent No. 3,834,869).

Ancelle discloses a method for producing a non-woven fiber composite for the manufacture of filters in the tobacco industry the method comprising feeding separated fiber materials to a fluidized bed (Figs. 1 and 2; via conduit 11); introducing a transport air through the fluidized bed (via air fan 29) to transport the separated fiber material (2-4) to a suction conveyor (Fig. 3; via conveyor 35 and suction box 36) located above the fluidized bed (via suction box 36 is located above the lower portion of the conduit 11 of Fig. 2); note that Fig. 3 is continuation to Fig. 2; where the transport air flows through the fluidized bed in the direction of the suction conveyor (Figs. 1-3); and compiling the fiber material on the suction conveyor to produce a non-woven fiber composite (column 1, lines 31-37 “the present invention is the manufacture by a wet process of non-woven webs and in particular of non-woven textiles, paper or of similar articles, or synthetic fibres,”) wherein the fluidized bed comprises a curved portion to separate used transport air from the fiber material, after which the separated fiber material is directed in an upward direction to the suction conveyor (Figs. 2 and 3; via by using conveyor 35 while passing through suction box 36).

Art Unit: 3721

Regarding claim 3: further comprising providing fibers of different compositions (Figs. 1 and 2; via 2-4).

Regarding claim 4: wherein the fibers in the fluidized bed (via 11) further comprises at least one additive (Fig. 3; via 39).

Regarding claim 5: wherein the separated fibers have a length from about 2 to about 100mm.

Regarding claim 6: wherein the average fiber diameter of the separated fibers is in the range of from about 10 to about 40 μ m.

Regarding claim 7: wherein the average fiber diameter of the separated fibers is in the range of from about 20 to about 38 μ m.

Regarding claim 11: successively feeding separated fiber materials (via through hoppers 2-4) of differing composition to the fluidized bed (via 11).

Regarding claim 12: wherein the feeding step further comprises the separating of fibers (via 8-10).

Regarding claim 13: further comprises forming a continuous fiber filter rod from the compiled fibers and dividing the continuous rod into individual filter sections, see for example (Figs. 1-8).

Regarding claim 27: wherein the transport air of the introducing step initially moves the separated fiber material downward toward the curved fluidized bed, then the transport air moves the separated fiber material generally horizontal along the curved fluidized bed and finally the transport air moves above the separated fiber material as the separated fiber material moves

Art Unit: 3721

along the curved fluidized bed upward toward the suction conveyor, see for example (Figs. 2 and 3; via by using conveyor 35 while passing through suction box 36).

Regarding claim 28: wherein the sharpest curvature of the curved fluidized bed is at the end of the fluidized bed where the fluidized bed connects with the suction conveyor (Figs. 2 and 3; via the sharpest curvature of the fluidized bed 11 at the top of Fig. 2 where 11 is connected with the suction conveyor Fig. 3; via 36); note that Fig. 3 is continuation of Fig. 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ancelle et al. (U.S. Patent No. 3,834,869).

Ancelle does not disclose that the separated fibers are synthetic fibers. However, the examiner takes an official notices that using synthetic fibers is old, well known, and available in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Ancelle's method for producing a non-woven fiber, by using a synthetic fibers, in order to easily shaping the filters to specific shape.

Regarding claim 9: Ancelle discloses that the fiber strength of the synthetic fibers is from about 1 to about 20 dtex.

Regarding claim 10: Ancelle discloses that wherein the fiber strength of the synthetic fibers (34) is from about 2 to about 6 dtex.

Art Unit: 3721

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

In case applicants are not convinced with the 102 rejection, claim 1 is further rejected under 35 U.S.C. 103(a) as being unpatentable over Ancelle et al. (U.S. Patent No. 3,834,869).

Nacelle discloses the claimed method for producing a non-woven fiber except for that the suction conveyor located above the fluidized bed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Ancelle's suction conveyor location by locating it above the fluidized bed, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Response to Arguments

Applicant's arguments filed 02/21/2007 have been fully considered but they are not persuasive.

Applicants argue in pages 6 and 7 of the filed arguments that the applied reference to Ancelle does not disclose the combination of fiber material on a suction conveyor to produce a non-woven fiber composite, and a curved fluidized bed that separates used transport air from the fiber material as claimed in the amended claim 1. The examiner maintains as disclosed above that Ancelle discloses the amended claim 1, as '869 in Figs. 2 and 3, shows belt 35 passing by

Art Unit: 3721

suction box 36, which by the use of suction box 36 the fiber material will steak to the belt separated from the transport air.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameh H. Tawfik whose telephone number is 571-272-4470. The examiner can normally be reached on Tuesday - Friday from 9:00 AM to 7:30 PM.

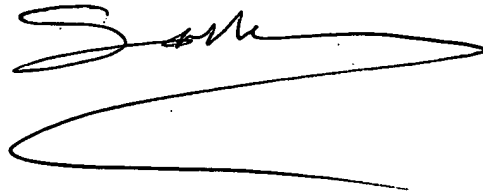
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3721

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sameh H. Tawfik
Primary Examiner
Art Unit 3721

ST.

A handwritten signature in black ink, appearing to read 'Sameh', followed by a long, sweeping horizontal line that extends to the right and then curves back towards the left.